Cinder Lake Landfill Expansion Volume Calculation Basic Parameters

Line #	Description	formula	Quantity	Unit
Α	Airspace between final plan and 11/96 survey (existing, include tri.)		7,934,682	CY
В	Excavation of tri. (between 11/96 topo and designed excavation)		447,533	CY
С	Airspace between final plan and 11/96 (including tri. excavated)		11,845,664	CY
D	Above ground airspace of exp. (filled over existing fill plan)		8,268,751	CY
Е	Excavation vol of exp. area		6,200,000	CY
F	Airspace being used up between 11/96 and 12/31/97		256,041	CY
G	Vol. of excavation in tri. betwwen 11/96 and 12/31/97		80,000	CY
1	Area of entire fill plan (incl. expansion)		10,822,453	SF
2	Area of fill plan for existing area (excl. tri.)		4,877,968	SF
3	Area of fill plan for existing area (incl. tri.)		6,142,808	SF
4	Total thickness of alternative final cover		2	LF
5	Thickness of final cover which requires on-site soil		2	LF
6	Refuse to daily cover ratio		3:1	
7	Vol of final cover occupies for existing area (excl. tri.)	line 2 x line 4 / 27	361,331	CY
8	Vol. of final cover occupies for existing area (incl. tri.)	line 3 x line 4 / 27	455,023	CY
9	Vol of final cover occupies for entire fill plan	line 1 x line 4 / 27	801,663	CY
10	Vol of cinder for the cover of existing area (excl. tri.)	line 2 x line 5 / 27	361,331	CY
11	Vol of cinder for the cover of existing area (incl. tri.)	line 3 x line 5 / 27	455,023	CY
12	Vol of cinder for the cover of entire fill plan	line 1 x line 5 / 27	801,663	CY
13	Net airspace for existing area (excl.tri.) (excl. final cover)	line A - line 7 - line F	7,317,310	CY
14	Net airspace for existing area (incl. tri.)(excl. final cover)	line C - line 8 - line F	11,134,600	CY
15	Net airspace for entire area (excl. final cover)	InD+InE+InC-In9-InF	25,256,711	CY
16	Daily cover required for existing area (excl. tri.)	line 13 x 0.25	1,829,328	CY
17	Daily cover required for existing area (incl. tri.)	line 14 x 0.25	2,783,650	CY
18	Daily cover required for entire site	line 15 x 0.25	6,314,178	CY
19	Total soil required for existing area (excl. tri.)	line 10 + line 16	2,190,659	CY
20	Total soil requireed for existing area (incl. tri.)	line 11 + line 17	3,238,673	CY
21	Total soil required for entire site	line 12 + line 18	7,115,841	CY
22	Surplus soil from excavating tri. area	line B - line G	367,533	CY
23	Size of "hole" by time existing area (ex. tri) built (vol of soil req.)	line 19	2,190,659	CY
24	Size of "hole"by time expansion area (incl. tri.) built (vol of soil req.)	line 20 - line 22	2,871,140	CY
25	Total vol. of soil required to be imported (for entire site)	line 21 - line 22- line E	548,308	CY
26	Avg. thickness of cinder in the expansion area	geotech. report	5	LF
27	Area from the exp. area req. for exc. of cinder when existing (incl. tri) built	line 11x27/5/43560	56	AC
28	Avg. thickness of soil in excavation area that can be used for daily cover	from exc. plan	30	LF
29	Area from exp. area required for exc. of soil when existing (incl.tri.) built	(line17-line22)/line28	50	AC